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(6) I. Programs written in assembly language are inherently machine specific and most totally be curiften on another computer achitecture d. Assembly language programs are longer than the equivalent programs written in high-level language 3. longer programse are difficult to read/violestand and contarn more bigs. At exacerbates the problem because of its complete lack of structure. 1) Forward reference is a label that is used before it is defined. It forces an assembler to translate a program in two steps: first find all labels and then produce instructions. (8) Symbol table is a table that matches names of labels to the addresses of the memory words that instructions occupy. An assembler records the name of the labor and the oddress of the memory word that the instruction occupies. Symbol lable records location of each lable defined in the file The three tasks that linkers perform are: 1. Sourches the program librorres to find library rathres used by the program 2. Determines the memory locations that code from each module will occupy and relocate its instructions by adjusting absolute references 3. Resolves references among files le It reads the executable file's header to determine (10) size of the text and data segments 2. It creates a new address space for the program. This address space is large enough to hold the text and data soments 3. It copies instructions and data from the executable file into

the new address space 4. It copies arguments pussed to the program onto the stadt 5. It initializes the machine registers. In general, most be assigned the address of the first free stack location 6. It jumps to a start up routine that copies the program's arguments from the shelf to registers and calls the program's main routine. If the main routine returns, the start up routine terminates the program with the exit system call.